

AMENDMENTS TO THE CLAIMS

As set forth in the **Complete Listing of Claims** section of this paper, claims 21, 26, 31, 33-35, 41, 56, and 58 are hereby amended.

COMPLETE LISTING OF CLAIMS

The following presents a listing of claims as currently pending in the application following the amendments set forth in **Amendments to the Claims** section of this paper, which listing replaces all prior versions and listings of claims:

1-20. (Canceled)

21. (Currently Amended) Intervertebral disc prosthesis comprising an upper plate, a lower plate, and a core, ~~[[an]]~~ a curved upper surface of the core being in contact with at least part of a curved lower surface of the upper plate and a lower surface of the core being in contact with at least part of an upper surface of the lower plate, and the upper plate being moveable at least with respect to the core and the core being movable in translation and rotation with respect to the lower plate, and in which there are cooperation means not located in the middle of the core between the lower plate and the core, so as to limit translation movements of the core with respect to the lower plate around an axis substantially parallel to the lower plate when the intervertebral disc prosthesis is assembled, and to limit or eliminate rotation movements of the core with respect to the lower plate around an axis substantially perpendicular to the lower plate when the intervertebral disc prosthesis is assembled.

22. (Previously Presented) Intervertebral disc prosthesis according to claim 21, in which the lower plate comprises male means cooperating with female means of the core.

23. (Previously Presented) Intervertebral disc prosthesis according to claim 21, in which the lower plate comprises female means cooperating with male means of the core.

24. (Previously Presented) Intervertebral disc prosthesis according to any one of claims 21, 22, or 23 in which an angle between respective planes of the upper and lower plates is obtained by the core having an acute angle in a front-rear direction.

25. (Previously Presented) Intervertebral disc prosthesis according to claim 24, in which the lower plate and the upper plate are assembled with a second core rather than the core and the second core has a thickness that differs from the thickness of the core.

26. (Currently Amended) Intervertebral disc prosthesis according to ~~any one of claims 24 or~~ claim 25, in which the angle between the upper and lower plates is between 0° and 15°.

27. (Previously Presented) Intervertebral disc prosthesis according to claim 21, in which the core is movable with respect to the upper and/or lower plates, to compensate for relative positioning defects between the upper plate, the lower plate and the core of the prosthesis.

28. (Previously Presented) Intervertebral disc prosthesis according to claim 21, in which at least part of the lower surface of the upper plate is concave and complementary to the upper surface of the core.

29. (Previously Presented) Intervertebral disc prosthesis according to any one of claims 22 or 23, in which the dimensions of each male means are less than those of each female means so as to enable a slight clearance between the core and the lower plate.

30. (Previously Presented) Intervertebral disc prosthesis according to any one of claims 22 or 23, in which the dimensions of each male means are substantially the same as those of each female means so as to inhibit clearance between the core and the lower plate.

31. (Currently Amended) Intervertebral disc prosthesis according to claim 22 or 24, in which the male means of the lower plate are two pins curved towards the inside of the prosthesis and located opposite each other on two edges of the prosthesis, and in that the female means of the core are two recesses.

32. (Previously Presented) Intervertebral disc prosthesis according to claim 31, in which at least one of the pins is replaced by a lug equipped with a drilling whereon a tag using a dowel entering the drilling.

33. (Currently Amended) Intervertebral disc prosthesis according to claim ~~claims 22 or 24~~, in which the male means of the lower plate are two dowel pins located near the center of the lower plate, in which the female means of the core are two wells.

34. (Currently Amended) Intervertebral disc prosthesis according to claim ~~claims 22 or 24~~, in which the male means of the lower plate are two walls located opposite each other along two edges of the prosthesis, and in which the female means of the core are recesses.

35. (Currently Amended) Intervertebral disc prosthesis according to claim ~~claims 22 or 24~~, in which the male means of the lower plate are a rib located ~~at the center of the prosthesis~~, and in which the female means of the core are a groove.

36. (Previously Presented) Intervertebral disc prosthesis according to claim 21, in which the core is made of polyethylene.

37. (Previously Presented) Intervertebral disc prosthesis according to claim 21, in which the lower plate comprises one or more openings along its front side, provided to receive prosthesis anchoring means in a vertebra.

38. (Previously Presented) Intervertebral disc prosthesis according to claim 37, in which the opening of the lower plate is rectangular, and in which the anchoring means comprise a body, forming an acute angle with the lower plate, and a head.

39. (Previously Presented) Intervertebral disc prosthesis according to claim 37, in which the openings of the lower plate are circular, and in which the anchoring means are nail-shaped.

40. (Previously Presented) Intervertebral disc prosthesis according to claim 21, in which the upper plate is convex on at least part of its upper surface to fit into the shape of the vertebrae.

41. (Currently Amended) An intervertebral disc prosthesis for substitution of a fibrocartilaginous disc between adjacent vertebra in a spinal column comprising:

an upper plate having a curved lower surface;

a lower plate having an upper surface;

a core having an upper surface and a lower surface,

the upper surface of the core being curved and configured for contact with at least part of the curved lower surface of the upper plate and

the lower surface of the core being configured for contact with at least part of the upper surface of the lower plate, said contact of the lower surface of the core with at least part of the upper surface of the lower plate being configured for translation movements of the core with respect to the lower plate along an axis substantially parallel to the upper surface of the lower plate and for rotation movements of the core with respect to the lower plate around an axis substantially perpendicular to the upper surface of the lower plate when the intervertebral disc prosthesis is assembled; and

a stop comprising a male portion and a female portion each located along an edge of the prosthesis, the male portion and the female portion each configured to limit translation movements of the core with respect to lower plate and rotation movements of the core with respect to the lower plate.

42. (Previously Presented) An intervertebral disc prosthesis according to claim 41 in which the upper surface of the core is convex and the lower surface of the upper plate is concave, and the lower surface of the core and the upper surface of the lower plate are each substantially planar.

43. (Previously Presented) An intervertebral disc prosthesis according to claim 42 in which the upper plate has an upper surface that is convex and the lower plate has a lower surface that is substantially planar.

44. (Previously Presented) An intervertebral disc prosthesis according to claim 43 further comprising anchors configured to engage an adjacent vertebra

45. (Previously Presented) An intervertebral disc prosthesis according to claim 44 in which the anchors are disposed on opposite sides of the prosthesis.

46. (Previously Presented) An intervertebral disc prosthesis according to claim 41 in which the female portion is disposed on the lower plate and the male portion is disposed on the core.

47. (Previously Presented) An intervertebral disc prosthesis according to claim 41 in which the male portion is disposed on the lower plate and the female portion is disposed on the core.

48. (Previously Presented) An intervertebral disc prosthesis according to claim 47 in which the female portion is a recess.

49. (Previously Presented) An intervertebral disc prosthesis according to claim 48 in which the recess is a groove.

50. (Previously Presented) An intervertebral disc prosthesis according to claim 47 in which the male portion is a pin.

51. (Previously Presented) An intervertebral disc prosthesis according to claim 47 in which the male portion is a tag fixed by a dowel.

52. (Previously Presented) An intervertebral disc prosthesis according to claim 47 in which the male portion is a wall.

53. (Previously Presented) An intervertebral disc prosthesis according to claim 47 in which the male portion is an inwardly curved pin.

54. (Previously Presented) An intervertebral disc prosthesis according to claim 41 in which the core forms an acute angle in a front-rear direction.

55. (Previously Presented) An intervertebral disc prosthesis according to claim 41 in which the core can have different thicknesses.

56. (Currently Amended) An intervertebral disc prosthesis for substitution of a fibrocartilaginous disc between adjacent vertebra in a spinal column comprising:

an upper plate having a curved lower surface;

a lower plate having an upper surface;

a core having an upper surface and a lower surface,

the upper surface of the core being curved and configured for contact with at least part of the curved lower surface of the upper plate and

the lower surface of the core being configured for contact with at least part of the upper surface of the lower plate, said contact of the lower surface of the core with at least part of the upper surface of the lower plate being configured for translation movements of the core with respect to the lower plate along an axis substantially parallel to the lower plate and for rotation movements of the core with respect to the upper surface of the lower plate around an axis substantially perpendicular to the upper surface of the lower plate when the intervertebral disc prosthesis is assembled; and

a restraint comprising a stop and a recess each located in the vicinity of an edge of the prosthesis, the stop and the recess each configured to limit translation movements of the core with respect to lower plate and rotation movements of the core with respect to the lower plate.

57. (Previously Presented) An intervertebral disc prosthesis according to claim 56 in which the upper surface of the core is convex and the lower surface of the upper plate is concave, and the lower surface of the core and the upper surface of the lower plate are each substantially planar.

58. (Currently Amended) An intervertebral disc prosthesis according to claim [[0]] 57 in which the upper plate has an upper surface that is convex and the lower plate has a lower surface that is substantially planar.

59. (Previously Presented) An intervertebral disc prosthesis according to claim 58 further comprising anchors configured to engage an adjacent vertebra

60. (Previously Presented) An intervertebral disc prosthesis according to claim 59 in which the anchors are disposed on opposite sides of the prosthesis.

61. (Previously Presented) An intervertebral disc prosthesis according to claim 56 in which the stop is a wall.

62. (Previously Presented) An intervertebral disc prosthesis according to claim 56 in which the stop is a pin.

63. (Previously Presented) An intervertebral disc prosthesis according to claim 56 in which the stop is a lug.

64. (Previously Presented) An intervertebral disc prosthesis according to claim 56 in which the recess is a groove.